

Leidy, Robert

From: Brian Powell <Brian.Powell@pima.gov>
Sent: Tuesday, November 17, 2015 9:15 AM
To: Leidy, Robert
Cc: Julia Fonseca; Ian Murray
Subject: RE: Herp review
Attachments: Amphibians and Reptiles - Direct Impacts-Murray.docx

Rob-

Please see the attached document, which was reviewed and annotated by Ian Murray, who is a herpetologist. Please let me know if you have any additional comments or questions.

Additional comments by Ian about the list:

"Given the fact that we simply want to robustly list any herp species that may be in habitat impacted by the mine site itself (Barrel Alternative) or the electric transmission line to the west of the Santa Ritas (and not only herp species whose overall population may be negatively impacted by the development) I ended up having to add a bunch of herps. Additionally, I suspect that additional species, such as glossy snakes, western blind snakes, western banded geckos, etc. probably would occur on the transmission line path. However, since I didn't find any UofA or UNM records for the immediate area, and given that they are widespread and common, I have left them out. We can re-visit that decision if you like.

Most species have not been vouchered in the immediate zone of mining impact, but in many cases have been vouchered in other heavily visited regions of the Santa Ritas that could have similar habitat to the area of mine impact. I checked the UofA records for all of these species and where relevant listed the general canyon/spring areas that they were vouchered in.

While twin-spotted rattlesnakes have been vouchered as low as 6000 feet in some areas, I think most of the time they are adjacent to higher elevation areas. Also, AZ Habimap did not include this species in their list of SGCN for the location of the mine, so I have not included it. Ridge-nosed and rock rattlesnakes will both regularly occur at lower elevations, both are more widely seen in general in the Santa Ritas, and both were included in AZ Habimap's list of SGCN for the site, so I included them. Sonoran mountain kingsnakes are mostly vouchered in the more southerly areas of the Santa Ritas (although elsewhere they occur at low elevations), and they were not included in the AZ Habimap, so I did not include them. I suspect they are probably in some habitat near the site of overall impact, however, but do not have enough evidence to warrant listing them in this document.

Surprisingly there are few sonoran mud turtle vouchers for the Santa Ritas, perhaps because no one wants to kill a turtle. However, I've seen observations of them noted from Gardner Canyon, and I believe Madera Canyon. Given their widespread occurrence to the south, and also within the Cienega Creek system, I have included them. I think that in most cases, wherever leopard frogs are able to colonize, the mud turtles are also capable of that.

Tarahumara frogs were extirpated from everywhere in the US by 1983. They have been introduced into Big Casa Blanca Canyon, and some introduced animals have moved on their own volition to Gardner and Adobe Canyons (not sure if they have also been re-introduced in these two canyons as well). Otherwise, the proposed mine is not likely to have impacts for the species, unless we start talking about pollution, ways that the mine may facilitate the movement of invasive exotics, or possibly far-reaching impacts to the water table."

Brian Powell
Program Coordinator
[Pima County Office of Sustainability and Conservation](#)
201 N. Stone Ave, 6th Floor, RM 629
Tucson, AZ 85701
P: 520.724.6555
F: 520.724.9491
E: brian.powell@pima.gov

From: Julia Fonseca
Sent: Friday, November 13, 2015 10:53 AM
To: Brian Powell
Cc: 'Leidy, Robert (Leidy.Robert@epa.gov)'
Subject: Herp review
Importance: High

Please review/edit, and respond directly to Rob Leidy with CC to me no later than COB Wednesday and hopefully sooner.

Rob used the biological source documents from the NEPA/Corps/ESA process to generate this list, plus review of the 1977 EIS. He did not have access to HDMS, so please review this against HDMS records and your own understanding/knowledge of suitable habitat and species occurrences in Bar V etc.

This list is intended to represent only the direct impacts of the mine based on the FEIS, so that would include the powerline where a consultant report (according to Rob) noted green rat snake while doing a bat survey. RE tortoise I recall seeing a record of tortoise in Rosemont mine area by David Kars, I think, probably from HDMS, but if you don't see it there then let me know and I can find out.

Please feel free to contact Rob directly for any clarifications needed. Thank you!

From: Leidy, Robert [<mailto:Leidy.Robert@epa.gov>]
Sent: Friday, November 13, 2015 9:20 AM
To: Julia Fonseca
Subject: RE: quick call tomorrow?

Julia,

Thank you for reviewing the attached draft list. Please let me know if you have any questions.

Best,

Rob

Robert A. Leidy, Ph.D.
Ecologist/Enforcement Officer
U.S. Environmental Protection Agency
Wetlands Office (WTR-2-4)
75 Hawthorne Street
San Francisco, CA 94105

(415) 972-3463

From: Julia Fonseca [mailto:Julia.Fonseca@pima.gov]
Sent: Friday, November 13, 2015 7:27 AM
To: Leidy, Robert <Leidy.Robert@epa.gov>
Subject: RE: quick call tomorrow?

Yes, sure!

From: Leidy, Robert [mailto:Leidy.Robert@epa.gov]
Sent: Thursday, November 12, 2015 9:17 PM
To: Julia Fonseca
Subject: RE: quick call tomorrow?

Hi Julia,

Do you have time for a quick call tomorrow (Friday) if you are in the office? Need some advice on who to contact for some technical questions.

Best,

Rob

Robert A. Leidy, Ph.D.
Ecologist/Enforcement Officer
U.S. Environmental Protection Agency
Wetlands Office (WTR-2-4)
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3463